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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/713,866

11/14/2003

Oleg Siniaguine

VAI 330

1858

23581

7590

10/20/2006

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EXAMINER

CRANE, SARA W

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,866

Applicant(s)

SINIAGUINE ET AL.

Examiner

Sara W. Crane

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 26, 27, 30, 32, 34, 35, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Ravin et al., US 6,908,737

The applied reference has a common inventor, as well as common assignee, with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claim 1, figure 3 of the reference shows a system for performing a multiplexed experiment (as noted in the first sentence of the abstract). There are a set of "particles," each a cylinder as created by the punch 303, and each having an optically detectable code pattern, distinct from other sets of "particles." As noted in the discussion of figure 3, column 16, lines 15-26, the figure shows the layers being distinct

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in color (line 22). Column 23, lines 29-60, teaches alternative embodiments where layers differ in optical properties (line 53), and such optical property difference may be different polarizations (line 59). The abstract explains that there are distinct samples and/or reagents ("probe molecules") connected to the "particles," and the abstract and the discussion of figure 3 teach that the set of "particles" can be analyzed in the same experiment by identifying samples according to code pattern as recited.

With respect to claim 27, "substrate" can be read on the lowest layer of a cylinder, and upper layers not in contact with the lowest layer would be "cleared" of the lowest layer. With respect to claim 30, any adjacent layer can be read as a "cladding layer." Nothing in the claim says that the cladding layers would have to have different structure from the light polarizing layers. With respect to claim 32, the teachings of column 23 would be that different layers each have light polarizing properties. With respect to claim 34, as noted above, any upper layer would be clear of the lowest layer. With respect to claim 35, the cylinders are defined to have sets of patterns, and all layers substantially coincide, because each is formed in the form of a cylinder, immediately above another layer having the same shape. With respect to claims 35, "cladding layers" can be read on any adjacent layers. With respect to claim 37, different cell populations are discussed with respect to, for example, figure 7 of the reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28-29, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ravkin et al., 6,908,737.

With respect to claim 28, any polarization effect at all would have to correspond to recognition at some wavelength range. It would have been obvious to use a substrate with low absorption in the measurement range, in order to allow all of the incident light to be utilized for detection, as desired. With respect to claim 29, there would have to be *some* wavelength of light for which any polarization layer would have low polarization. (No material polarizes for all frequencies of the electromagnetic spectrum.) With respect to claim 31, absent any showing of criticality, size ranges of layers as recited would have been obvious, in order to allow for using the "particle" with equipment that is sensitive to such ranges, for example. With respect to claim 33, perpendicular polarization would have been obvious, because such a relationship would block all incident light, and thus would be easy to detect.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (571) 272-1652.

The supervisor for Art Unit 2811, Eddie Lee can be reached on (571) 272-1732. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sara W. Crane
Primary Examiner
Art Unit 2811